SCHUBERT CENTER FOR CHILD STUDIES

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EXAMINING RESILIENCE
Among Maltreated Children

BACKGROUND

Child maltreatment is a serious public health issue—an estimated 702,000 U.S. children were victims of maltreatment in 2014, a rate of 9.4 per 1,000 children.[1] Childhood maltreatment puts children at risk for lifelong poor outcomes.[2] However, emerging research examines the importance of protective factors and promoting resilience. Researchers at Case Western Reserve University recently completed a study examining how protective factors promote long-term resilience for maltreated children.

Child maltreatment takes many forms, including neglect, physical abuse, emotional/psychological abuse, and sexual abuse. The majority of all maltreatment victims are neglected (75.0%), followed by physically abused (17.0%) and sexually abused (8.3%).[1] In Ohio, there were 24,931 victims of child abuse in 2014, a rate of 9.4 per 1,000 children, identical to the national average.[1] Although data varies on the prevalence of maltreatment by age, interest in sensitive periods of child development suggests that maltreatment during earlier periods may be especially harmful in disrupting development, though maltreatment at any point can be harmful.[3]

The Ecological Model of child development (Figure 1) illustrates how multiple levels of a child's environment, from the individual to the family to the larger community to society as a whole, shape a child's development.[4] At the individual level, impulse control, positive self-esteem, and optimism have been associated with greater resilience after maltreatment.[5] Within the family, nurturing parenting skills and family stability are protective against child maltreatment.[6] Similarly, factors outside of the family can influence both the prevalence of maltreatment within a community and outcomes for children who are maltreated. These include adequate housing, access to social services and caring non-family adults in a larger social network. Neighborhoods with stronger social networks and support, especially across generational lines, have lower rates of all types of child maltreatment.[7] Although structural factors, such as neighborhood poverty and housing instability, can contribute to higher rates of

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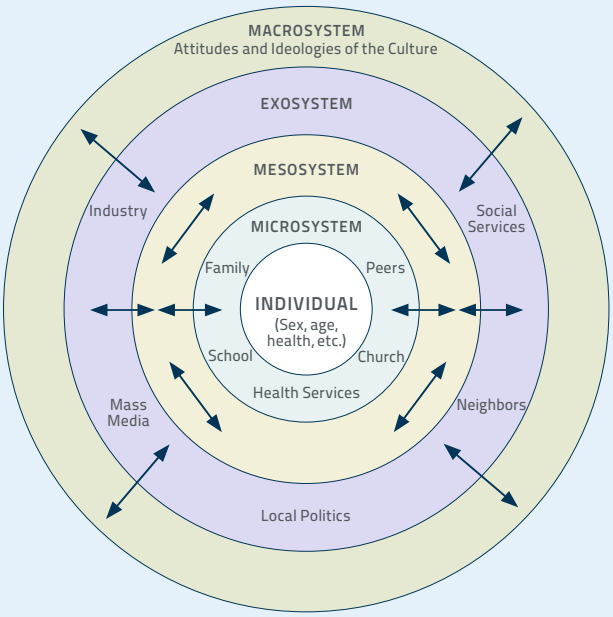
FIGURE 1: BROFENBRENNER'S ECOLOGICAL MODEL OF DEVELOPMENT



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examining resilience continued >

maltreatment, social connectedness and collective efficacy within neighborhoods can help to mediate the effects of structural factors and work to prevent child maltreatment.[8] Emerging strategies to improve neighborhood social support networks, such as the **Strong Communities for Children** initiative, have found success in increasing social connectedness and decreasing parenting stress.[9]

Preventing child maltreatment and promoting resilience has lifelong benefits for children. At the individual level, studies of Adverse Childhood Experiences (ACEs), including child maltreatment, have shown that children with multiple ACEs have a higher risk of poor outcomes such as alcoholism, drug abuse, depression, smoking, physical inactivity and obesity.[10] Still, some children fare better than others, leading researchers to investigate what promotes resilience in children who have experienced maltreatment. Social relationships, such as a stable family environment and supportive relationships with adults, and individual factors, such as increased self-efficacy and coping skills, have been associated with increased resilience following maltreatment.[5] Promoting safe, stable and nurturing relationships has been identified by the CDC as a key strategy for preventing child maltreatment.[11] Interventions targeted at breaking intergenerational cycles of violence can promote well-being for many years to come.[12, 13] Five key strategies have been identified to break the cycle:

(1) Effective early intervention

(2) Care for neglected children

(3) Interventions tailored to the needs of the child

(4) Public health surveillance programs that respect children's racial and ethnic backgrounds, and

(5) Access to resources, including social services and interventions.[12]

Reducing neighborhood violence and disadvantage also may play an important role in breaking the cycle of violence.[13]

Despite research pointing to multiple risk factors associated with poorer outcomes for maltreated children, not all children display such problems. In fact, some children continue to thrive and achieve adaptive development despite early adverse life events. Instead of focusing on the negative outcomes of maltreated children, Case Western Reserve University Assistant Professor **Megan Holmes**, PhD, and colleagues, **Adam Perzynski**, PhD, **Susan Yoon**, MSW, and **Julia Kobulsky**, MA, took a strength-based perspective and asked the question, "What makes maltreated children resilient?" Specifically, they examined potential protective factors at the individual-, relationship-, and neighborhood-level that promoted resilient behavior despite experiences of maltreatment. ■

MULTILEVEL PROTECTIVE FACTORS
that Promote Well-Being for Maltreated Children

This study examined data from the National Survey of Child and Adolescent Well-Being (NSCAW), which is a nationally representative sample of children who have been investigated by Child Protective Services (CPS) for maltreatment. Data were collected at 4 time points over approximately 8 years with the first time point occurring at the close of CPS investigation.

Three independent studies of *Academic Performance, Internalizing Symptoms,* and *Early Substance Use* were conducted to examine resilient behavior among maltreated children. All three studies examined how different protective factors impacted resilience. Individual-, relationship-, and neighborhood-level protective factors were used to predict resilient outcomes **(Table 1)**.

Academic Performance: Holmes and Perzynski examined academic competence using a sample of 1,772 children who were between the ages of birth and 5 years old at the first time point.

Internalizing Symptoms: Yoon looked at internalizing symptoms (anxiety and depression) using a sample of 541 children who were between the ages of 4 and 5 years old at the first time point.

Early Substance Use: Kobulsky studied early adolescent substance use among a sample of 796 youth ages 11-13 at the first time point.

FINDINGS

Researchers found that children who experienced maltreatment fell into distinct categories over time, some resilient, others facing challenges.

Academic Performance Study

Holmes and Perzynski identified five patterns of academic performance indicating that children have diverse pathways of development over time **(Figure 2)**. Two resilient groups were identified: Group 1 (21.5%) demonstrated high and stable performance over time. Group 2 (20.1%) started low but increased in performance over time. The other three groups were identified as: Group 3 (19.9%) demonstrated low and stable academic performance over time; Group 4 (21.4%) had an initial high performance but decreased over time; and Group 5 (17.1%) had an initial high performance then decreased but then increased again with subsequent decline over time.

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TABLE 1: LEVELS OF PROTECTIVE FACTORS USED TO PREDICT RESILIENT OUTCOMES

Individual Protective Factors	Relationship Protective Factors	Neighborhood protective Factors
■ Prosocial skills [1]	■ Caregiver wellbeing [3]	■ Neighborhood safety [6]
■ Preschool attendance	■ Caregiver warmth [4]	■ Safety after investigation [7]
■ Internal well-being [2]	■ Caregiver cognitive responsiveness [5]	
■ Cognitive Ability	■ Permanency	

1 Being cooperative, responsible, having self-assertion and self-control

2 Absence of mental distress, including posttraumatic stress and internalizing symptoms (i.e., anxiety/depression, social withdrawal, and somatization)

3 Absence of parental substance use problems, parental depression/other mental health problems

4 Quality and quantity of emotional support (e.g., spontaneously praising child, hugging or kissing child) provided by the caregiver

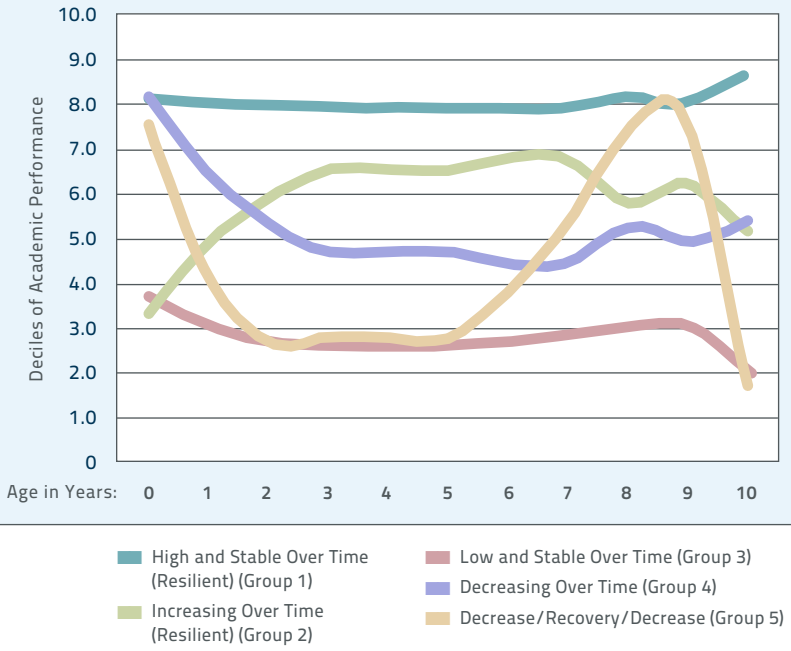
5 Quality and quantity of cognitive stimulation (e.g., reading stories to child) that children receive

6 Caregiver perception of safety (e.g., crime, violence) of neighborhood

7 Safety from maltreatment after close of CPS investigation

Despite research pointing to multiple risk factors associated with poorer outcomes for maltreated children, not all children display such problems.

FIGURE 2. ACADEMIC PERFORMANCE OVER TIME



Green lines indicate the two resilient groups. Group 1 consistently performed well in school over time. Group 2 started out performing poorly but then performed better over time. Group 3 consistently performed poorly over time. Group 4 started out performing well in school but then performed more poorly over time. Group 5 shows a rapid decline followed by an increase and a subsequent decline over time. Language development was used as a proxy for academic performance for ages birth to 3 years.

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Children who experienced physical abuse when 3 or 4 years of age or neglect during the period from birth to 2 years had higher odds of being in the low stable academic performance group (Group 3) compared to the high stable group (Group 1). There were no significant differences in terms of maltreatment for children in the low stable group (Group 3) compared to the low increasing group (Group 2). However, caregiver warmth and caregiver cognitive responsiveness were identified as protective factors significantly associated with the higher stable group (Group 1) and low increasing group (Group 2) compared to the lower stable group (Group 3).

Internalizing Symptoms Study

Internalizing symptoms, such as anxiety and depression, have been identified as a negative behavioral outcome associated with child maltreatment.[14] Yoon identified two resilient groups: Group A (75%) which demonstrated consistently low internalizing symptoms over time and Group B (16%) which started out with high internalizing symptoms but decreased to a moderate level over time. The third group, Group C (9%), represented low initial internalizing symptoms but increasing symptoms over time **(Figure 3)**.

Sexually abused children were more likely to be in the increasing internalizing symptoms group (Group C) compared to the consistently low internalizing symptoms group (Group A). There were no significant differences in terms of maltreatment for children in the decreasing internalizing symptoms group (Group B) compared to the increasing internalizing symptoms group (Group C). Higher levels of prosocial skills and higher caregiver well-being were significantly associated with the consistently low internalizing symptoms group (Group A) compared to the other two groups (Group B and Group C).

Early Substance Use Study

Kobulsky found physical abuse severity was related to higher internalizing symptoms, post-traumatic stress, and early substance use (i.e., by 13 years). Sexual abuse severity was only related to post-traumatic stress. The absence of internalizing symptoms was identified as a protective factor for early substance use for children who had been physically abused.

DISCUSSION

Considering the diversity of outcomes for academic performance and internalizing symptoms patterns, it is clear that not all maltreated children develop maladaptive outcomes, and that some children exhibit resilient behavior over time. Interpreted within Bronfenbrenner's bioecological framework,[15] the presence of distinct patterns of development may indicate that children's behaviors are constantly influenced by multiple levels of risk and

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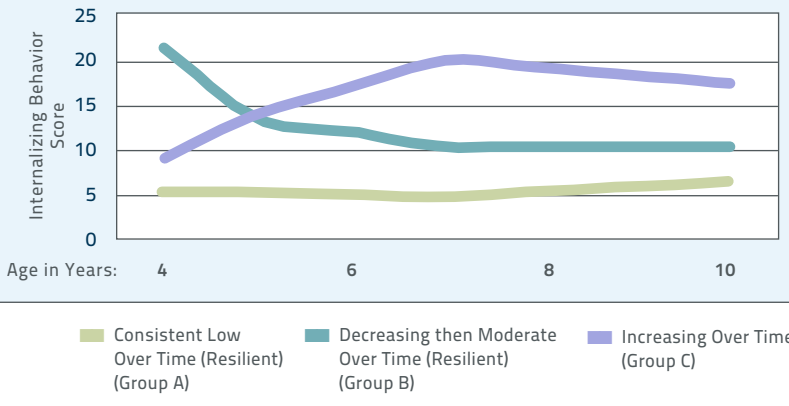
protective factors surrounding the children. After further investigation, several risk and protective factors emerged.

Sexually abused children, compared to non-sexually abused children, were more likely to be in the increasing internalizing symptoms group (Group C) than the consistently low internalizing symptoms group (Group A). Neglected children, compared to non-neglected children, were more likely to be in the poorer academic performance group (Group 3) than the resilient groups (Group 1 and Group 2). This suggests, in the absence of protective factors, that early experiences of neglect or sexual abuse have long-term detrimental effects on child outcomes.

Although physical abuse was not significantly related to internalizing symptoms in younger children in the *Internalizing Symptoms* study, in the *Early Substance Use* study of older children, physical abuse severity was associated with higher internalizing symptoms, which in turn was associated with early substance use. This mediated relationship suggests that internal well-being may be a pathway connecting physical abuse to early substance use. However, the limited strength of this connection underscores early substance use as a complex phenomenon with a wide range of contributing factors (e.g., community environmental factors).

FIGURE 3. INTERNALIZING SYMPTOMS OVER TIME



Green lines indicate the two resilient groups. Group A had consistently low internalizing symptoms over time. Group B started out having high internalizing symptoms but then decreased to moderate level of symptoms over time. Group C started out having low internalizing symptoms but then increased in symptoms over time.

The results of both the *Internalizing Symptoms and the Early Substance Use* studies suggest that sexual abuse may be related to a delayed but long-lasting impact on children's internalizing symptoms and substance use, suggesting the importance of ongoing monitoring of outcomes for sexually abused children. For example, the relationship between sexual abuse and post-traumatic stress may impact substance use via the development of later substance use disorder.

Two protective factors at the individual- and three protective factors at the relationship-level were associated with resilient behavior. The *Early Substance Use* study found that internal well-being mediated the relationship between physical abuse severity and early substance use, consistent with some past research [16, 17] but contrary to other analyses [18–20] examining older adolescents. Consistent with previous research reporting an inverse relationship between prosocial skills and internalizing symptoms,[21–23] the *Internalizing Symptoms* study found that higher child prosocial skills were associated with consistently low internalizing symptoms over time (Group A). Children with prosocial behaviors often have strong emotional bonds and positive social interactions with others, which may reduce feelings of isolation or loneliness and prevent the development of internalizing symptoms.

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Caregiver well-being also significantly predicted children being in the consistently low internalizing symptoms group (Group A). This is consistent with previous research that has suggested caregiver depression, alcohol abuse, and drug dependence as important underlying mechanisms for children's internalizing behavior problems over time.[24–26]

Caregiver warmth and cognitive responsiveness also were strong predictors of children being in the resilient groups for academic progress (Group 1 and Group 2). Consistent with past cross-sectional research with maltreated children, high levels of sensitive and stimulating parenting (e.g., appropriate cognitive/verbal responsiveness) has been associated with positive cognitive outcomes.[27] By examining outcomes longitudinally, the results suggest that such protective factors may have the potential to change the course of development despite early maltreatment experiences. Support for caregiver's emotional and mental health is key for promoting effective and warm caregiving.

Neighborhood safety was not significantly associated with diverse patterns of internalizing or academic competence trajectories. One possible explanation for this lack of association may be that neighborhood influences may not affect child outcomes until closer to adolescence when children are likely to spend more time with peers in the neighborhood, have more contact with people living in the neighborhood, and become involved with community activities. ■

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POLICY Implications

Responses to child maltreatment take two primary forms: programs designed to prevent maltreatment and programs in response to maltreatment. Researchers agree that the foundations of lifelong health are best laid during early childhood.[32]

Nurse home visiting programs, where nurses visit pregnant women and young families, have been shown to be effective in reducing child maltreatment, improving childhood quality of care, and promoting beneficial outcomes for children through adolescence.[32–34] In Cuyahoga County, the **Welcome Home Newborn Visiting Program** and **Bright Beginnings Home Visiting Program** provides parents with home visits from a registered nurse within the first six weeks of life, though funding continues to be a challenge in delivering services.[35] A 2004 evaluation in Cuyahoga County found that the programs studied were effective in improving parenting outcomes, though many children were still not reached, even after being referred to the program.[36] The **Triple P-Positive Parenting Program** also has strong evidence that it reduces child maltreatment and improves parenting skills.[32] As noted above, strong relationships within a neighborhood and community[7,8] and supportive relationships with adults[5] promote child abuse prevention and resilience after child maltreatment has occurred. Programs that provide children with high quality early childhood education, such as **Head Start, Early Head Start** and **PRE4CLE**, Cleveland's initiative to provide access to high quality preschool for all children, plays an important role in connecting families with their communities, promoting relationships between children and other supportive adults and connecting to services.[37] Researchers also have identified the preschool to kindergarten transition as a particularly important part of child development,[38] with social-emotional school readiness just as important as academic school readiness in positive school experiences.[39,40]

Creating effective responses to child maltreatment that promote resiliency is another key component of child maltreatment intervention. Sufficient funding for child protective services is necessary to ensure children receive evidence-based care, including improving the quality of care and reducing the amount of time spent in out-of-home care. **The Annie E. Casey Foundation**, a leader in child maltreatment policy, recommends restructuring federal funding to improve permanency and reduce the amount of time children spend in residential care; to improve the quality of and support for foster care families; to promote a more capable child welfare workforce; and to fund both therapeutic and social services for families and children.[41] Unfortunately, federal foster care payments decreased 40% and funding to support vulnerable families decreased 26%, from 2002 to 2011.[42]

Policy responses should promote factors that are associated with resilience in maltreated children, including stable family environments, supportive relationships, and high quality and individually tailored social services.[5,43] Interventions to improve children's environments, such as increasing social connectedness within neighborhoods and reducing neighborhood poverty can play a key role in preventing child maltreatment and promoting positive parenting.[7,8,13] Sufficient state and federal funding is needed for research to ensure that policies and programs related to child maltreatment are evidence-based and effective.[44] ■

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